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The Forest – Andisols Group

- Abe, H., M. Maki, S. Horie and Y. Suyama (2011) Isolation and characterization of microsatellite loci for *Menziesia goyozanensis*, an endangered shrub species endemic to Mt. Goyo in northern Japan. *Conservation Genetic Resources*, 3 (3): 569-571.
- Hasegawa, Y., Y. Suyama and K. Seiwa (2011) Pollination system of a deciduous broad-leaved tree, *Castanea crenata*: the pollen donor composition on female flowers and the pollen selection. *Forest Tree Breeding*, 240: 12-21 (in Japanese with English summary).
- Hasegawa, Y., Y. Suyama and K. Seiwa (2011) Difference in pollen donor composition during the early phases of reproduction as revealed by DNA analysis of pollen grains and seeds in the monocious tree *Castanea crenata*. In: *Single-pollen genotyping*, Yuji Isagi and Yoshihisa Suyama (Eds.), pp. 33-46, Springer, Tokyo.
- Honma, H., Y. Suyama and Y. Nakai (2011) Detection of parasitizing coccidia and determination of host crane species, sex and genotype by faecal DNA analysis. *Molecular Ecology Resources*, 11(6): 1033-1044.
- Honma, H., Y. Suyama, Y. Watanabe, F. Matsumoto and Y. Nakai (2011) Accurate analysis of prevalence of coccidiosis in individually identified wild cranes in inhabiting and migrating populations in Japan. *Environmental Microbiology*, 13(11): 2876-2887.
- Imaji, A. and K. Seiwa (2011) Carbon allocation as a mechanism of growth-survival trade-offs. *Japanese Journal of Ecology*, 61: 329-333 (in Japanese with English Summary).
- Konno, M., S. Iwamoto and K. Seiwa (2011) Specialisation of a fungal pathogen on host tree species in a cross inoculation experiment. *Journal of Ecology* 99, 1394-1401.
- Konno, M. and K. Seiwa (2011) The validity of the Janzen-Connell model in the maintenance of tree species diversity. *Japanese Journal of Ecology*, 61: 319-328 (in Japanese with English Summary).
- Masaki, T. and Y. Suyama (2011) Reproduction and seed dispersal in forest trees. In: *Current Ecology Series 8: Forest Ecology*, The Ecological Society of Japan (Ed.), pp. 136-153, Kyoritsu Shuppan Co., Ltd., Tokyo (in Japanese).
- Parducci, L. and Y. Suyama (2011) Single-pollen genotyping of Holocene lake sediments. In: *Single-pollen genotyping*, Yuji Isagi and Yoshihisa Suyama (Eds.), pp. 101-109, Springer, Tokyo.
- Saito M., H. Oba and T. Kojima (2011) Effect of nitrogen on the sporulation of arbuscular mycorrhizal fungi colonizing several gramineous plant species. *Soil Science and Plant Nutrition*, 57(1): 29-34.
- Sasaki, T., Y. Yoshihara, Y. Suyama and T. Nakashizuka (2011) Clipping stimulates productivity but not diversity in improved and semi-natural pastures in temperate Japan. *Agriculture Ecosystems and Environment*, 142(3-4): 428-431.
- Seiwa, K. and K. Kikuzawa (2011) Close relationship between leaf life span and seedling relative growth rate in temperate hardwood species. *Ecological Research*, 26: 173-180.
- Seiwa, K. and T. Osono (2011) Roles of fungi and herbivore in creating species-diversity in forests – a perspective review-. *Japanese Journal of Ecology*, 61: 291-295 (in Japanese with English Summary).
- Seiwa, K., Y. Eto, M. Hishita and K. Masaka (2011) Effects of thinning intensity on species richness and timber production in a conifer, *Cryptomeria japonica* plantation in Japan. *Journal of Forest Research* (DOI 10.1007/s10310-011-0316-z).
- Suyama, Y. (2011) Procedure for single-pollen genotyping. In: *Single-pollen genotyping*, Yuji Isagi and Yoshihisa Suyama (Eds.), pp. 7-15, Springer, Tokyo.
- Takahashi, T., H. Kanno, N. Tsujimura and M. Nanzyo (2011) What does 1 M potassium chloride-extractable aluminum from non-allophanic Andosols measure? *Japanese Journal of Soil Science and Plant Nutrition*, 82: 1-6 (in Japanese with English summary).
- Yamada, K., K. Ito, T. Takahashi, H. Kanno and M. Nanzyo (2011) Inhibitory effect of acid Andosols on plants - Is aluminum toxicity true for allophanic Andosols? *Soil Science and Plant Nutrition*, 57: 491-499.

The Ruminant Production Group

- Amer, S., R. Oishi, C. Tada, Y. Fukuda, N. Inoue and Y. Nakai (2011) Molecular identification and phylogenetic analysis of *Trypanosoma evansi* from dromedary camels (*Camelus dromedarius*) in Egypt; a pilot study. *Acta Trop.*, 117: 39-46.
- Amer, S., Y. Dar, M. Ichikawa, Y. Fukuda, C. Tada, T. Itagaki and Y. Nakai (2011) Identification of *Fasciola* species isolated from Egypt based on sequence analysis of genomic (ITS1 and ITS2) and mitochondrial (NDI and COI) gene markers. *Parasitol. Int.*, 60: 5-12.
- Asano, R., K. Kubori, Y. Ozutsumi, N. Yamamoto, K. Otawa and Y. Nakai (2011) Detection of *Escherichia coli* in a cattle manure composting process by selective cultivation and colony PCR. *J. Environ. Sci. Health, Part B Pesticides, Food Contaminants, and Agricultural Wastes*, 46(2): 122-127.
- Asano, R., K. Hirooka and Y. Nakai (2011) Middle-Thermophilic Sulfur-Oxidizing Bacteria *Thiomonas* sp. RAN5 Strain for H₂S Removal. *Journal of the Air & Waste Management Association* (in press).
- Baba, Y., C. Tada and Y. Nakai (2011) Methane fermentation project in China. Sustainable livestock production and human welfare, *Yokendo*, 65(3): 339-347 (in Japanese).
- Hikosaka, K., Y. Nakai, Y. Watanabe, S. Tachibana, N. Arisue, N. M. Palacpac, T. Toyama, H. Honma, T. Horii, K. Kita and K. Tanabe (2011) Concatenated mitochondrial DNA of the coccidian parasite *Eimeria tenella*. *Mitochondrion*, 11: 273-278.
- Hirata, M., S. Ogura and M. Furuse (2011) Fine-scale spatial distribution of herbage mass, herbage consumption and fecal deposition by cattle in a pasture under intensive rotational grazing. *Ecological Research*, 26(2): 289-299.
- Honma, H., Y. Suyama, Y. Watanabe, F. Matsumoto and Y. Nakai (2011) Accurate analysis of prevalence of coccidiosis in individually identified wild cranes in inhabiting and migrating populations in Japan. *Environ. Microbiol.*, 82(2): 320-324.
- Hosnia, A., T. Sasaki, C. Tada and Y. Nakai (2011) Characterization and partial purification of a bacteriocin-like substance produced by thermophilic *Bacillus licheniformis* H1 isolated from cow-manure compost. *Animal Sci. J.*, 82(2): 340-351.
- Ichihashi, O., C. Tada and Y. Nakai (2011) Power generation from animal wastewater using microbial fuel cell, *Journal of Integrated Field Science*, 8: 13-20.
- Kato, S., K. Sato, H. Chida, S.-G. Roh, S. Ohwada, S. Sato, P. Guilloteau and K. Katoh (2011) Effects of sodium-butyrate-supplementation in milk formula on plasma concentrations of GH and insulin, and on rumen papilla development in calves. *Journal of Endocrinology* (in press).
- Nakai, Y. (2011) Reconstruction of agriculture to harmonize with environment: Agri-reconstruction Project (ARP). *Governance*, Gyosei, 125: 25-27 (in Japanese).
- Nakai, Y. (2011) Reconstruction of earthquake/tsunami-damaged farmland and agriculture: Agri-reconstruction Project (ARP). *JAMTI BULLETIN*, Japan Meat Technology Institute, 2011(1).
- Nakai, Y. (2011) Outline of Agri-reconstruction Project (ARP). *The Alumni Association Report of Faculty of Agriculture, Tohoku University*, 82: 3-4 (in Japanese).
- Ninomiya, S. and S. Sato (2011) The assessment of the effect of presenting a companion's face picture on social isolation stress using saliva sampling in cows. *Animal Science Journal*, 82(6): 787-791.
- O'Brien, M. F., M. J. Brown, M. F. Stidworthy, M. A. Peirce, R. N. Marshall, H. Honma and Y. Nakai (2011) Disseminated visceral coccidiosis in Eurasian cranes (*Grus grus*) in the UK. *Veterinary Record*, 168: 216 originally published online February 21 doi:10.1136/vr.c6409
- Ogura, S., Y. Iino and S. Sato (2011) Home range size of beef cattle under a pasture-forest complex grazing system. *The 9th International Rangeland Congress*, Rosario, Argentina, pp. 660.
- Ogura, S., H. Karino, T. Chiba, S. Akasaka, T. Shishido, R. Chiba and Y. Yashima (2011) Effect of hoof cultivation on the establishment of seedlings of temperate grasses under simple renovation by disk harrow in a mountainous grazing pasture. *Tohoku Journal of Animal Science and Technology*, 60(3): 99-107 (in Japanese with English summary).
- Ogura, S. (2011) Diet selection and foraging behavior of cattle in species-rich vegetation of native grasslands, Japan. *Journal of Integrated Field Science*, 8: 25-33.
- Ogura, S., M. Ebato, T. Kikawada, T. Kiyoshi and Y. Masaoka Y (2011) Development and perspectives of the Young Researchers' Association in the Japa-

- nese society of grassland science. Japanese Journal of Grassland Science, 57(2): 99-107 (in Japanese).
- Oishi, R., C. Tada, R. Asano, N. Yamamoto, Y. Suyama and Y. Nakai (2011) Growth of ammonia-oxidizing archaea and bacteria in cattle manure compost under various temperatures and ammonia concentrations. Microb. Ecol., published online Nov 10. 2011 DOI 10.1007/s00248-011-9971-z.
- Oishi, R., K. Hirooka, K. Otawa, C. Tada and Y. Nakai (2011) Ammonia-oxidizing archaea in lab-scale activated sludge systems for wastewater of low- or high-ammonium concentration. Animal Science Journal, published online: 16 Dec 2011. DOI: 10.1111/j.1740-0929.2011.00995.x
- Sasaki, T., Y. Yoshihara, Y. Suyama and T. Nakashizuka (2011) Clipping stimulates productivity but not diversity in improved and semi-natural pastures in temperate Japan. Agriculture Ecosystems and Environment, 142: 428-431.
- Sato, S. (2011) Report on the assessment system of animal welfare. Japanese Livestock Technology Association, Tokyo. pp. 1-23, 36-45, 50-51 (in Japanese).
- Sato, S. (2011) Current situation and future of the welfare code on animal production systems in OIE. NIWATORI-NO-KENKYU, 8: 16-18 (in Japanese).
- Sato, S. (2011) Animal Welfare-New service of veterinarian. Journal of the Japan Veterinary Medical Association, 64(2): 88-92 (in Japanese).
- Sato, S. (2011) Animal welfare efforts and sustainable livestock. In: Livestock Farming and Developments in the Field of Livestock in Japan, Japan Association for International Collaboration of Agriculture and Forestry (Ed.), pp. 69-75.
- Sato, S., S. Kondo, T. Tanaka, R. Kusunose, Y. Mori and G. Idani (Eds.) (2011) Ethogram of Animals in Captivity. Asakura Publishing, Tokyo, pp.1-216 (in Japanese, Book).
- Sato, S. (2011) Grazing system in forest. In: The History of Technology: Livestock Industry. Japanese Livestock Technology Association, Tokyo, pp. 253-255 (in Japanese, Book).
- Tada, C., N. Ikeda, S. Nakamura, R. Oishi, J. Chigira, T. Yano, K. Nakano and Y. Nakai (2011) Animal wastewater treatment using constructed wetland, Journal of Integrated Field Science, 8: 41-47.
- Tanaka, M., Y. Kamiya, T. Suzuki and Y. Nakai (2011) Changes in oxidative status in periparturient dairy cows in hot conditions. Animal Sci. J., 82(2): 320-324.
- Tomimatsu, H. and S. Ogura (2011) A non-destructive method to estimate plant biomass in a Miscanthus-dominant pasture. The 9th International Rangeland Congress, Rosasio, Argentina, pp. 339.
- Tomimatsu, H., M. Yokoyama and S. Ogura (2011) Changes of plant selectivity in cattle with depletion of plant availability in a Japanese native pasture. The 9th International Rangeland Congress, Rosasio, Argentina, pp. 616.
- Tozawa, A., T. Inamoto, C. Kojima-Shibata and S. Sato (2011) Health characteristics of fattening pigs reared at pasture compared to 5 indoor housing systems. 5th International Conference on the Assessment of Animal Welfare at Farm and Group Level. 8-11 August 2011, Canada.
- Uetake, K., T. Tanaka and S. Sato (2011) Effects of haul distance and stocking density on young suckling calves transported in Japan. Animal Science Journal, 82(4): 587-590.
- Yamamoto, N., R. Asano, H. Yoshii, K. Otawa and Y. Nakai (2011) Archaeal community dynamics and detection of ammonia-oxidizing archaea during composting of cattle manure using culture-independent DNA analysis. Appl. Microbiol. Biotechnol., 90: 1501-1510.
- Yamamoto, N., M. Tannai and Y. Nakai (2011) Recycling of unused biomass: Real scale composting study of residues of vegetables and fruits. Tohoku University Field Science Center Annual Report, 9-12 (in Japanese).
- Yokoyama, M., S. Tanaka, M. Hori and S. Ogura (2011) Factors affecting plant selection of grazing cattle in a diverse, native grassland in Japan. The 9th International Rangeland Congress, Rosasio, Argentina, pp. 460.
- Yoshihara, Y. (2011) How does differential timing of grazing affect plant species diversity in improved and semi-natural pastures? Journal of Integrated Field Science, 8: 73-77.

The Rice Production Group

- Feng, L., Y. Hasegawa, M. Saito, S. Shirasawa, A. Fukushima, T. Ito, H. Fujii, S. Kishitani, H. Kitashiba and T. Nishio (2011) Extensive chromosome homoeology among Brassicaceae species were revealed by comparative genetic mapping with high-density

- EST-based SNP markers in Radish (*Raphanus sativus* L.). DNA Research, 18: 401-411.
- Ito, T. (2011) Agricultural land degradation caused by tsunami and storm surge, and the cause and solution strategy for salt damage. Tohoku Weed J., 11: 23-35 (in Japanese).
- Ito, T., M. Kawase, K. Hara and C. Kon (2011) Ecology and function of aquatic oligochaetes in winter-flooded rice fields with organic farming. Soil Microorganisms, 65(2): 94-99 (in Japanese).
- Ito, T., N. Kikawa and M. Saigusa (2011) Phosphorus sorption and bioavailability in allophanic and non-allophanic Andosols. Pedologist, 55(2): 84-88 (in Japanese).
- Kanno, H. (2011) Damages to farmland soils caused by the great tsunami – a case of soil survey covering a wide area in Miyagi Prefecture -. Agri-Reconstruction Project Report, 1(2): 26-32 (in Japanese).
- Koga, N. and R. Tajima (2011) Assessing energy efficiencies and greenhouse gas emissions under bio-ethanol-oriented paddy rice production in northern Japan. Journal of Environmental Management, 92: 967-973.
- Nanzyo, M. (2011) A possible process of vivianite formation on rice roots. Proceedings of the 10th International Conference of the East and South-east Asia Federation of Soil Science Society, Ed.-in-Chief, R.S. Dharmakeerthi, “Soil, A Precious Natural Resource: Agricultural Ecosystems, Environmental Health & Climate Change”. October, 10-13, 2011, Colombo, Sri Lanka, pp. 25-26.
- Nanzyo, M. (2011) Outlining recent developments related to soil informatics in Japan. Ibid., 158-160.
- Nanzyo, M. (2011) Damages to farmland soils caused by the Great East Japan Earthquake and counter-measures. Agri-Reconstruction Project Report, 1(2): 52-56 (in Japanese).
- Tajima, R. and Y. Kato (2011) Comparison of threshold algorithms for automatic image processing of rice roots using freeware Image. J. Field Crops Research, 121: 460-463.
- Tajima, R., K. Tsushima, K. Kamo, T. Ito and M. Saito (2011) Effect of PolySilicate-Iron sludge on rice roots at organic farming. The JSRR’s 20th Anniversary Symposium, Tokyo, Japan. (6/Nov/2011). Root Research, 20(5): 195.
- Takahashi, H., H. Sekiguchi, T. Ito, M. Sasahara, N. Hatanaka, A. Ohba, S. Hase, S. Ando, H. Hasegawa and S. Takenaka (2011) Microbial community profiles in intercellular fluid of rice. Journal of General Plant Pathology, 77(2): 121-131.
- Takata, Y., T. Ito, T. Ohkura, H. Obara, K. Kohyama and Y. Shirato (2011) Phosphate adsorption coefficient can improve the validity of RothC model for Andosols, Soil Sci. Plant Nutr., 57: 421-428.

Marine Bio-Production Group

- Ikeda, M. (2011) Invasion of taxonomically- confused “species”: Importance of DNA analysis. Nippon Suisan Gakkaishi, 77: 307-308.
- Itou, T., M. Kanno, Y. Suyama, A. Kamiyama, S. X. Sakamoto, A. Kijima, K. Inaba and M. N. Aoki (2011) Development of 12 polymorphic micro-satellite DNA markers for the kelp *Ecklonia cava* (Phaeophyceae, Laminariales), Conservation Genet Resour, DOI: 10.1007/s12686-011-9574-5 (online first).
- Katamachi, D., M. Ikeda, S. Dong and N. Taniguchi (2011) Genetic variability of silver carp *Hypophthalmichthys molitrix* population introduced into the Tone River basin, Japan assessed by mtDNA analysis. Nippon Suisan Gakkaishi, 77: 31-39 (in Japanese with English abstract).
- Katamachi, D., S. Dong, M. Ikeda and N. Taniguchi (2011) Comparison in genetic variability between Yangtze and Tone Rivers populations of silver carp *Hypophthalmichthys molitrix* using mitochondrial DNA and novel microsatellite DNA markers. Fish Genet. Breed. Sci., 40: 105-112.

Integrated Field Control Group

- Imai, T., D. Kunii, M. Watanabe, G. Saito and C. Yonezawa (2011) Paddy rice monitoring by ALOS/PALSAR full polarimetric data. Proceedings of the 50th spring conference of the remote sensing society of Japan, pp.235-236 (in Japanese with English abstract).
- Ishitsuka, N., N. Tomiyama, T. Yamanokuchi, G. Saito, C. Yonezawa and S. Ogawa (2011) Project for development of application using satellite image to measure paddy rice planted area in Japan -Case of PALSAR. Proceedings of APSAR 2011, CD-ROM.
- Morozumi, K. (2011) Examination towards creating a regional environmental eco-business and necessary

- social support system: A case study of the charcoal electric power in Oide Village, Rikuzentakada City, Iwate Prefecture. *Journal of Farm Management Economics*, 42: 1-14.
- Morozumi, K. (2011) The effects of the 2011 Tohoku earthquake and tsunami and the problems which confront us at reconstructing the rural villages. *JA Agricultural Cooperative KEIEI-JITSUMU (Management Practical Affaires)*, 66(10): 68-75 (in Japanese).
- Morozumi, K. (2011) The economic recovery after the 2011 Tohoku earthquake and tsunami. *Agricultural Management Review*, National Agricultural Research Center, 248: 1.
- Morozumi, K. (2011) The 2011 Tohoku earthquake and tsunami, and cycle-type river basin economic zone. *The NORIN KINYU (Monthly Review of Agriculture, Forestry and Fishery Finance)*, Norinchukin Research Institute Co., Ltd, 64(7): 54-55 (in Japanese).
- Morozumi, K. (2011) How can we understand the effects of the 2011 Tohoku earthquake and tsunami to the rural area. *Policy Research Institute, Ministry of Agriculture, Forestry and Fisheries, Primaff Review*, 44: 1 (in Japanese).
- Morozumi, K. (2011) Problems now confront us after the 2011 Tohoku earthquake and tsunami. *Regional Agriculture and Cooperatives, Agricultural Development and Training Center*, 41(3): 2-3 (in Japanese).
- Omura, M. (2011) Possibility of information exchange on city and rural area by self glow type web archive -A case study of agriculture. *The Japan association of regional policy*, 9: 89-95.
- Omura, M. (2011) Study on factory energy management system in slaughter house. *Sustainable Livestock Production and Human Welfare*, 65(2): 249-252.
- Saito, G., C. Yonezawa, A. Kitamura, S. Ogawa, K. Kosugi and M. Kato (2011) Determination of paddy field in the world using TERRA/ASTER data. *Proceedings of IGARSS 2011 Symposium*, CD-ROM.
- Watanabe, H., C. Yonezawa, T. Imai and D. Kunii (2011) Observation of tsunami damage to marine farm caused by the Chili earthquake on 2010 using ALOS data. *Proceedings of the 50th spring conference of the remote sensing society of Japan*, pp.267-268 (in Japanese with English abstract).
- Watanabe, M., C. Yonezawa and H. Takakura (2011) Detection of flooding area with PALSAR full polarimetry mode, *Proceedings of the 50th spring conference of the remote sensing society of Japan*, pp.269-270 (in Japanese with English abstract).
- Watanabe, M., M. Shimada, T. Motooka and C. Yonezawa (2011) Observation of the 2011 off the Pacific coast of Tohoku earthquake and tsunami with PALSAR full polarimetry mode, *Proceedings of the 48th spring conference of the remote sensing society of Japan*, pp.93-94 (in Japanese with English abstract).
- Watanabe, M., T. Motooka, T. Shiraishi, R. Tapa, C. Yonezawa and M. Shimada (2011) Time variation of radar backscattering from a tree, *Proceedings of the 51th spring conference of the remote sensing society of Japan*, pp.79-80 (in Japanese with English abstract).
- Yonezawa, C., T. Imai, D. Kunii, M. Watanabe and G. Saito (2011) Polarimetric observation for rice field by RADARSAT-2 and ALOS/PALSAR. *Proceedings of IGARSS 2011 Symposium*, CD-ROM.
- Yonezawa, C., A. Kitamura, T. Ogawa, M. Watanabe and Y. Haruyama (2011) Comparison and incident angle dependency for a relation between sigma-0 and biomass derived from PALSAR. *Proceedings of APSAR 2011*, CD-ROM.